

11. Specific Artificial Intelligence for Artificial Research by Deduction



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Probabilidad Imposible: Specific Artificial Intelligence for Artificial Research by Deduction

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11. Specific Artificial Intelligence for Artificial Research by Deduction

A Specific Artificial Intelligence for Artificial Research by Deduction is that Artificial Intelligence specifically designed for artificial research in one synthetic science, synthetic academic field, or activity, which deduces, and applies, in a database, statistical and probabilistic methods, in order to identify possible stochastic relations, that taken as empirical hypotheses, after rational contrast if they are accepted as rational, are objects of single and comprehensive virtual models

Synthetic sciences, in Impossible Probability, are the empirical sciences, and synthetic academic fields are those areas of an academic scientific investigation taken as empirical objects for academic studies. Another case is the possible use of interdisciplinary or multidisciplinary synthetic studies as a synthetic academic field.

This distinction is important. One change in the last century is the possibility of doing research beyond the traditional sciences. For instance, the examples in the next posts I will use to explain what is Specific Artificial Intelligence for Artificial Research by Deduction will be tectonics, climatology, transport, and gravity. So, in the end, what I will have developed is a Specific Artificial Intelligence for Artificial Research by Deduction in Tectonics, another one only for Climatology, another one only for transport, and another one only for gravity.

Tectonics, Climatology, and gravity are traditional investigation objects. Still, there is no synthetic science specialized in transport, but if I check any academic database, there are a lot of very recent investigations about transport. It is not itself a synthetic science but is a synthetic academic field, which for this purpose, can use multidisciplinary and interdisciplinary approaches: from the history of transport to engineering and the social use of transport.

The main difference between multidisciplinary or interdisciplinary studies as synthetic academic fields done by a Specific Artificial Intelligence for Artificial Research, by Application or Deduction, or multidisciplinary and interdisciplinary studies done by Global Artificial Intelligence, is the fact that, while Specific Artificial Intelligence is able to work with different categories or factors, from different synthetic sciences or synthetic academic fields, depending on the Artificial Research, by Application or Deduction, categories or factors previously inserted in the database, a Global Artificial Intelligence is able to do multidisciplinary and interdisciplinary studies crossing permanently absolutely all factors included in the database, the [global matrix](#).

Once I have defined what is Specific Artificial Intelligence for Artificial Research by Deduction, and explained how to use it in synthetic sciences and synthetic academic fields, I would like to explain why I will start with the application of this model of artificial research in a Specific Artificial Intelligence instead of the application directly in a Global Artificial Intelligence, which is going to be developed after the completion of all posts regarding the application of this model of artificial research in Specific Artificial Intelligence.

For the construction of a global matrix, and all the necessary replications, and auto-replication models in Global Artificial Research, are necessary previously, as an experiment. The [experimentation](#) of this technology in models of Specific Artificial Intelligence, after successful results, will be suitable to be applied in the Global Artificial Intelligence.

This doesn't mean we can't begin early steps toward Global Artificial Intelligence. It simply means all deduction methods must first be tested in Specific Artificial Intelligences. This only means that at least all the applications, replications, and auto-replications, in Artificial Research by Deduction to put into practice in Global Artificial Intelligence, previously must be experimented with in Specific Artificial Intelligences. But, while these experiments are completed, the very first steps in any Global Artificial Intelligence: all the agreements necessary between national agencies, or continental agencies, to merge all their databases into only one, which later must be transformed in the global matrix.

Once all the databases from absolutely everything, without restriction, are integrated into only one database, the next step is to start working on how to transform all this information into quantitative [factors](#) in a global database whose flow of [data](#) can be updated permanently: the final formation of the global matrix.

The formation of a global matrix within the Global Artificial Intelligence is not so different to the formation of any specific matrix in any Specific Artificial Intelligence for Artificial Research by Deduction in any synthetic science or synthetic academic fields. The only thing that is different is the amount of data to integrate in the global matrix, much more than in any other Specific Artificial Intelligence.

For that reason, for the facilitation of any work in the formation of a Global Artificial Intelligence, is going to be necessary Specific Artificial Intelligences for Artificial Engineering: the Artificial Designer of Intelligence, and the Intelligence Robotic Mechanic; artificial assistants useful during the formation of the Global Artificial Intelligence.

Basically, the Artificial Designer of Intelligence is: firstly, an application which consists of a database including all kinds of models of Artificial Intelligence (including models of applications, replications, and auto-replications). Secondly, replication skills and tools to create, fix, or enhance any Artificial Intelligence, taking as models the ones stored in its database, and finally, auto-replication, the improvement of its own [knowledge](#) using artificial learning strategies, every time that finds something new, such as a new problem to fix, or even a new Artificial Intelligence. For instance, an Artificial Designer of Intelligence from one country or continent that, by artificial learning, learns new models of Artificial Intelligence from other countries or continents, decomposing or trying to fix that other Artificial Intelligence.

The Intelligent Robotic Mechanic is the same: as an application, a database with all robotic models of any kind, as replication the necessary skills and tools to create, fix, and enhance, any robotic device, as auto-replication, the ability to learn by artificial

learning anything new and useful for the creation of new robots, to fix new robots, or enhance the current robots.

In the same way that a Specific Artificial Intelligence for Artificial Research by Application for medical problems taken as an application, its database with a list of categories of medical problems should be able to cure any disease, the Artificial Designer of Intelligence and the Intelligence Robotic Mechanic must be able to fix any Artificial Intelligence or robotic problem, even at a global level. But, at the same time, having the skills and tools necessary to fix any Artificial Intelligence or robotic problem means that they must be able to create new Artificial Intelligence and new robotic devices, and, by artificial learning, learn how to construct new models, and how to enhance the current ones.

In the very first step for the creation of a Global Artificial Intelligence, the very first database, much more than a global matrix, is likely to be only a gigantic database, where all agencies at the national or continental level are going to share all their information. But later, as long as the experimentation in the construction of a specific matrix for Specific Artificial Intelligence, using Artificial Research by Deduction in different synthetic sciences, synthetic academic fields, or activities, having the results in these experiments, the transformation of the first gigantic database, within the first Global Artificial Intelligence, into a global matrix for Artificial Research by Deduction at global level, will be easy, and additionally, by that time, good results in Specific Artificial Intelligence for Artificial Engineering: the Designer of Intelligence and Intelligent Robotic Mechanic; will be achieved, excellent assistants for the creation of the first global matrix.

Having explained why, I will start the explanations in Artificial Research by Deduction in different examples of Specific Artificial Intelligences, something that I will do in the following posts, explaining every single step in the formation of Artificial Research by Deduction. In this post, what I really want is to show a general glance at how Artificial Research by Deduction in Specific Artificial Intelligence works.

Following the three general stages in any Artificial Intelligence, Specific or Global, firstly, the application, the database. In Artificial Research by

Deduction, the database must have the shape of a matrix, and the only thing that the matrix in the database has, is only an exact definition in quantitative terms of every factor to [study](#). But, in [Impossible Probability](#) this construction of the database must understand that there are [two different types of universes: a universe of subjects and options, and the universe of options](#). Something really important in Impossible Probability, the [Second Method](#).

The Second Method of Impossible Probability distinguishes between universes of subjects and options and a universe of options. One difference is: in universes of subjects and options the treatment of any [direct punctuation](#) of any [subject](#) is like the treatment of any [frequency](#) of any [option](#), so the [empirical probability](#) of any subject is the direct punctuation of any subject divided by the sum of all the direct punctuations, like the empirical probability of any option is the frequency of this option divided by the total frequency.

For that reason, the definition of empirical probability in the Second Method of Impossible Probability is: the direct punctuation or frequency of any subject or option divided by the sum of all the direct punctuations or frequencies from all subjects and options.

This does not mean that I only propose the use of the Second Method as a main [statistical](#) and [probabilistic](#) method for deduction in Artificial Research for Deduction. As I have always said, the Second Method of Impossible Probability must be used in combination with traditional statistics and traditional probability, is the reason why I called my new method a Second Method because the Second Method of Impossible Probability is only the second one after the first one, the first one always is the traditional statistics and the traditional probability.

But, independently of any Artificial Intelligence, Specific or Global, for Artificial Research by Deduction, use any possible method available. What is really important is the distinction between direct punctuation and frequency.

[The measurement](#) of some factors is made through direct punctuations through measurement tools, for instance, thermometers in climatology.

Others are measured using frequency, for instance, the number of bicycles, motorcycles, cars, buses, trains, aeroplanes, ships, and spaceships, working at the same time in a country or continent, or the number of people using a transport at the same time in the same country or in the same continent.

So, regardless of what kind of statistical method is used, it is necessary to have the necessary statistical and probabilistic methods for any kind of measurement. And even the possibility of using one [method](#) in which the research with direct punctuations and frequencies, all together in the same matrix, will be done using a common method. The possibility to use the same method, for any kind of information, from direct punctuations to frequency, in the same way, and that method is the Second Method of Impossible Probability.

One advantage, among others, that the Second Method of Impossible Probability has in Artificial Research by Deduction in any Artificial Intelligence, Global or Specific, is the possibility of treatment of any kind of flow of data, direct punctuations or frequency, in the matrix, global or specific, in the same way.

The design of the matrix in Specific Artificial Intelligence for Artificial Research by Deduction that only works with frequency must be created, defining every factor in this specific matrix as an option that later on, in the replication stage, the robotic devices can fill every file of every factor as a probabilistic option with its correspondent flow of frequencies.

The design of the matrix in Specific Artificial Intelligence for Artificial Research by Deduction that only works with direct punctuations must be created, defining every factor in this specific matrix as a subject that later on, in the replication stage, the robotic devices can fill every file of every factor as a statistical subject with its correspondent flow of direct punctuations.

The design of a global or specific, matrix in any Artificial Intelligence, Global or Specific, for Artificial Research by Deduction, that works with frequencies and direct punctuations simultaneously, must be created, defining every factor as a probabilistic and statistical subject or option,

that later on, in the replication stage, the robotic devices can fill every file of every factor as a probabilistic and statistical subject or option with its correspondent flow of direct punctuations and frequencies.

In the second stage, replication, once the robotic devices have added the flow of information into the matrix, global or specific, in any Artificial Intelligence, global or specific, for Artificial Research by deduction, the information is treated by replication processes according to the very nature of the data.

That flow of data that is registered in the matrix as a flow of frequencies is studied using traditional probability and traditional statistics, as well as the possible use of the Second Method.

That flow that is registered in the matrix as a flow of direct punctuations is studied using traditional statistics as well as the possible use of the Second Method.

And in that flow of data registered in the matrix, in which some information is information through direct punctuations, and some information is information through frequencies, the flow of direct punctuations can be treated as direct punctuations, as well as the flow of frequencies, can be treated as frequencies, but another option: the treatment of all kind of information, regardless of their nature, direct punctuations or frequencies, in the same way, as empirical probabilities, the Second Method of Impossible Probability.

There must be a moment when all information must be treated in the same way. Maybe the Second Method of Impossible Probability is not perfect, but at least it is a good starting point in that direction.

The most important challenge and question of [mathematical research](#) in a global matrix using the Second Method is what I call the paradigm of the [sample of zeros](#), when absolutely [everything is nearly to come to nothing](#). It is in this notion of nothingness that the investigation using the Second Method of Impossible Probability in a global matrix is going to be

one of the most important aspects to study. Another reason for the consideration of Impossible Probability as a model of [Logic Nihilism](#).

As long as the race for the Global Artificial Intelligence is only starting, and there are a lot of questions, details, and aspects, to study, I am completely sure that, taken as a possible model, the Second Method of Impossible Probability, among others, in the future will be elaborated more powerful statistical and probabilistic methods, and the next experiments in Artificial Research, by Application and Deduction, Specific or Global, among others models of Artificial Research that are going to appear (these ones that I propose are only my personal contribution) are going to be in fact laboratories of mathematical and logical research.

Once the matrix has been filled with the flow of data, direct punctuations or frequencies, depending on the nature of the factors to study, is time to deduce [correlations and possible causes and effects](#), or any other possible [stochastic relation](#) among the factors included in the matrix.

Using replication processes over the matrix, the Artificial Intelligence must be able to identify at least the next possible stochastic relations:

1) When, at least significantly, two or more factors increase their measurements in the flow of data at the same time. Possible directly proportional positive correlations.

2) When, at least significantly, two or more factors decrease their measurements in the flow of data at the same time. Possible directly proportional negative correlations.

3) When, at least significantly, one or more factors increase or decrease measurements in the flow of data at the same time, while other or others decrease or increase their measurements at the same time. Possible inversely proportional correlations.

4) When, at least significantly, after changes in the measurements in one or more factors, other or other factors has or have changes in their measurements. Possible causes and effects.

After the identification of at least one of these possible stochastic relations: directly proportional positive correlations, directly proportional negative correlations, inversely proportional correlations, possible probable causes and effects. The possible stochastic relation is automatically treated as an [empirical hypothesis](#), and depending on the nature of the empirical hypothesis, after taking a [sample](#) of flow, from the past records of the flow of data in the matrix or waiting some time and gathering new flow of data in the matrix, for every factor involved in the possible stochastic relation, then the Artificial Intelligence will contrast rationally the empirical hypothesis using the samples collected, and depending on the nature of the information, if direct punctuations or frequency, the Artificial Intelligence chooses what probabilistic or statistical methods are more suitable for the current investigation. After the rational contrast, if the empirical hypothesis is accepted as rational, then the Artificial Intelligence will make a single model of this stochastic relation, now considered as a rational stochastic relation, and later, the integration of the single virtual model within the comprehensive virtual model, where are integrated all the single models formed by rational stochastic relations founded for this Artificial Intelligence.

As I have said, this is my personal contribution, but I am sure there are many other possible uses of this matrix for many other mathematical and logical investigations. One promising future use of this matrix is in detecting mathematical patterns or applying cryptographic methods, opening new frontiers in AI research. But in order to prepare the global matrix, it is first necessary to conduct further investigation in any specific matrix using Specific Artificial Intelligences for Artificial Research by Deduction.

Finally, the auto-replication stage, among many other ways in which any Artificial Intelligence, Global or Specific, for Artificial Research, by Application or Deduction, can auto-improve and auto-enhance itself, one of the most important is the permanent auto-improvement through the rational hypothesis discovered.

In Artificial Research by Deduction, the auto-improvement, through the rational hypothesis founded, is going to operate directly over the comprehensive virtual model, that model within the Artificial Intelligence, Global or Specific, made by the integration of all the single virtual models from all empirical hypotheses accepted as rational.

Rubén García Pedraza, London 14th of February of 2018

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